

from Box NN-17-2 (#2) 5.3 (1959) Criticality Hazardous
(Bolsz) 2925 ✓

(This section to be completed by subcontractor requesting document)

J. Lamb / 1034A
Requestor Document Center (is requested to provide the following document)

Date of request ~~6/14/96~~ 6/14/96 Expected receipt of document ~~6/14/96~~ 7/14/96

Document number none Date of document 4/28/59

Title and author (if document is unnumbered)

Radioactive Content of the Atmosphere and the Amount of Fallout

⇒ copy marked document

(This section to be completed by Document Center)

Date request received 6/19/96

Date submitted to ADC 7/3/96

Date submitted to HSA Coordinator 6/19/96

(This section to be completed by HSA Coordinator)

Date submitted to CICO 7/3/96

Date received from CICO 7/22/96

Date submitted to ChemRisk/Shonka and DOE 7/31/96

(This section to be completed by ChemRisk/Shonka Research Associates, Inc.)

Date document received _____

Signature _____

RECEIVED
D.M. LANG

cc: C. E. Center, W/encls. 2925
L. B. Emlet, W/encls.
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G. A. Garrett, W/encls.
R. G. Jordan, W/encls.
D. M. Lang, W/encls. ✓
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J. A. Swartout, W/encls.

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1959 APR 29 AM 8:00
UNION CARBIDE NUCLEAR COMPANY
DIVISION OF UNION CARBIDE CORPORATION



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File (5.3)

Return to
D.M. Lang

April 28, 1959

U. S. Atomic Energy Commission
P. O. Box E
Oak Ridge, Tennessee

Attention: Mr. S. R. Sapirie, Manager
Oak Ridge Operations

Subject: Radioactive Content of the Atmosphere
and the Amount of Fallout

Gentlemen:

In accordance with your letters dated April 8 and 9, 1959, subject as above and referenced O:LRM, we have completed our file searches and are submitting herewith the following lists and information for the below-identified facilities. To the best of our knowledge, the documents identified in the attached lists represent all the documents which we have uncovered and deemed pertinent to the subject. There were no reprints of journal articles.

Oak Ridge National Laboratory (ORNL)

List No. 1 identifies all the CF memorandums and a few ORNL reports generated since January 1, 1947, relative to radioactive content of the atmosphere and the amount of fallout. A single copy of each document shown on this listing was furnished to Technical Information Service Extension (TISE) on April 17, 1959. Those documents on this listing, which were previously transmitted to TISE are marked with an asterisk. An additional copy was supplied to TISE to supplement their file copy. All documents submitted have been declassified (without deletion) or were issued as unclassified. Furthermore, all documents have received Carbide patent release.

List No. 2 completes the inventory of ORNL generated documents pertinent to the subject. It is a list of formal ORNL reports generated by the ORNL Health Physics Division which contain some pertinent data. Standard distribution has been made to the listed reports.

Data gathered at ORNL on the radioactive content of the atmosphere and the amount of fallout will continue to be reported in annual ORNL reports prepared by the Applied Health Physics Section of the ORNL

This document has been approved for release
to the public by:

John H. Hester 7/24/64
Technical Information Officer Date
Oak Ridge K-25 Site

Union Carbide Nuclear Company, Oak Ridge
Gaseous Diffusion Plant, Operating Contractor
for the U.S. Atomic Energy Commission.

April 28, 1959

Health Physics Division and will be distributed under TID-4500. We have also enclosed a copy of report ORNL-2601 for your information. Pages 36 through 54 gives information as to how and by whom the subject data are obtained, assembled and analyzed at ORNL. Report ORNL-2601 is being distributed under Category UC-70, of TID-4500.

Oak Ridge Gaseous Diffusion Plant (ORGDP)

List No. 3 identifies all the ORGDP documents originated since January 1, 1947, relative to radioactive content of the atmosphere and the amount of fallout. A single copy of each document which is not marked with an asterisk was furnished to TISE on April 17 or 21, 1959. Those documents marked with an asterisk were previously sent to TISE. The listing also includes the document classification and reasons for classification if classified.

ORGDP does not maintain a general monitoring program for radioactive content of the atmosphere because the very small quantity of material which may be released presents no problems of environmental atmospheric contamination. However, data are collected and reported whenever there is a local, accidental release of process material occurring during plant operations and these data are evaluated for operational control considerations as well as toxic and radioactive considerations. In no case has there been widespread contamination which would be of interest from either the health or the environmental standpoint. The type of data which are found in document KFM-27, "Excerpts from Classified Reports Originated at the Oak Ridge Gaseous Diffusion Plant," usually pertain to internal conditions and, are in our opinion, of interest and consequence only to those concerned with plant operations. This type of excerpted information is of no benefit to the public and we would object to its public dissemination because of very probable misunderstanding and its adverse effect on personnel relations.

In the event any data or pertinent information on radioactive content of the atmosphere or the amount of fallout are collected, this data or information will be presented in report form and disseminated in accordance with AEC Standard Distribution Lists or made available to TISE in accordance with ORGDP procedures established for compliance with AEC Chapter Manual and OR Instruction 3202. This procedure has been approved by the Commission and its implementation at ORGDP is periodically appraised by representatives of TISE and ORO.

Paducah Gaseous Diffusion Plant

Only one document was uncovered at the Paducah Plant which was deemed pertinent to the subject. It is shown on List No. 3. This document was transmitted to TISE on April 17, 1959. The document is a graph

April 28, 1959

(unclassified) which resulted from a Commission request for a radiological study to be made at the Paducah Plant during the period of January through May in 1955. No other formal, informal or internal reports containing information on radioactive content of the atmosphere were uncovered.

The Paducah Plant does not maintain a monitoring program for radioactive content of the atmosphere. Under the current operating program at the Paducah Plant, we do not anticipate generation of information or data on radioactive content of the atmosphere. Should subsequent program changes involve the necessity for atmospheric radiological monitoring, we shall make the information or data available in accordance with Paducah Plant procedures established for compliance to AEC Chapter Manual and OR Instruction 3202. This procedure has been approved by the Commission and its implementation at the Paducah Plant is periodically appraised by representatives of ORO.

Y-12 Plant

List No. 3 identifies all of the reports issued by the Y-12 Plant since January 1, 1947, which were pertinent to the subject. Only 2 reports were found to contain the information which was requested. However, the Y-12 Quarterly Report usually contains a table on airborne contamination. These tables were excerpted and bound in one document for transmission to TISE. This makes a total of 3 documents from Y-12 which were transmitted to TISE on April 16, 1959.

It will be noted that reports Y-1186 and Y-1234 (marked with an asterisk) were distributed on original issuance to TISE under the subject category "Health and Safety." It has been, and will continue to be, the practice at Y-12 to make available on standard distribution this type of information. All data on radioactive content of the atmosphere (as found in Y-B94-155, "Air Contamination Results - Excerpted from Y-12 Plant Quarterly Reports from January 1, 1953, through December 31, 1958") are regularly reported to the AEC Production Division, ORO, as a part of the Plant Quarterly Report. While we do not feel that this type of information is of general public value, we would have no objection to the Commission excerpting this information for further distribution if they deem it necessary.

In the event any other data or pertinent information on radioactive content of the atmosphere or the amount of fallout are collected at Y-12, this data or information will be presented in report form and disseminated in accordance with AEC standard distribution lists or made available to TISE in accordance with Y-12 Plant procedures established for Y-12 compliance with AEC Chapter Manual and OR Instruction 3202. This

April 28, 1959

procedure has been approved by the Commission and its implementation at Y-12 is periodically appraised by representatives of TISE and ORO.

Production Plants Patent Interests

All documents sent to TISE have received Carbide patent clearance.

Yours very truly,

UNION CARBIDE NUCLEAR COMPANY

C. E. Center
C. E. Center, Vice President

CEC:WLH:mrw (K-25 RC)
Attachments

cc: Mr. S. W. Scott, Chief, W/encls.
Oak Ridge Patent Group

LIST 1

ORNL DOCUMENTS GENERATED SINCE JANUARY 1, 1947 RELATIVE TO RADIOACTIVE CONTENT
OF THE ATMOSPHERE AND AMOUNT OF FALL OUT

CF 47-3-444	CF 48-3-236	CF 48-7-168	CF 48-9-37
CF 47-6-24	CF 48-4-80	CF 48-7-169	CF 48-9-42
CF 47-6-167	CF 48-4-169	CF 48-7-170	CF 48-9-72
CF 47-6-418	CF 48-4-241	CF 48-7-172	CF 48-9-80
CF 47-7-36	CF 48-4-365	CF 48-7-205	CF 48-9-121
CF 47-8-44	CF 48-5-96	CF 48-7-319	CF 48-9-123
CF 47-8-446	CF 48-5-134	CF 48-7-321	CF 48-9-126
CF 47-9-166	CF 48-5-190	CF 48-7-358	CF 48-9-140
CF 47-9-191	CF 48-5-193	CF 48-8-19	CF 48-9-142
CF 47-9-195	CF 48-5-208	CF 48-8-46 *	CF 48-9-146
CF 47-10-95	CF 48-5-290	CF 48-8-60	CF 48-9-147
CF 47-10-119	CF 48-5-316	CF 48-8-86 *	CF 48-9-158
CF 47-10-568	CF 48-5-359	CF 48-8-86 Addendum	CF 48-9-165
CF 47-11-237	CF 48-6-44	CF 48-8-87	CF 48-9-239
CF 47-11-340	CF 48-6-45	CF 48-8-89	CF 48-9-254
CF 47-12-393	CF 48-6-71*	CF 48-8-110	CF 48-9-274
CF 47-12-394	CF 48-6-105	CF 48-8-127	CF 48-9-283
CF 47-12-506 *	CF 48-6-154	CF 48-8-222	CF 48-10-8
CF 48-1-134	CF 48-6-189	CF 48-8-304	CF 48-10-49
CF 48-1-172	CF 48-6-207	CF 48-8-339	CF 48-10-75
CF 48-2-189	CF 48-6-332	CF 48-8-352	CF 48-10-76*
CF 48-2-190	CF 48-6-391	CF 48-8-358	CF 48-10-90
CF 48-2-230	CF 48-7-15	CF 48-8-401	CF 48-10-128
CF 48-3-111	CF 48-7-66	CF 48-9-4	CF 48-10-129
CF 48-3-210	CF 48-7-113	CF 48-9-36	CF 48-10-130

*These documents previously sent to TISX.

LIST 1 (continued)

-2-

CF 48-10-132	CF 48-11-293	CF 49-2-61	CF 49-4-145
CF 48-10-144	CF 48-12-5	CF 49-2-70	CF 49-4-229*
CF 48-10-166	CF 48-12-6	CF 49-2-127	CF 49-4-273
CF 48-10-167	CF 48-12-79	CF 49-2-146*	CF 49-5-38
CF 48-10-185	CF 48-12-81	CF 49-2-160	CF 49-5-121
CF 48-10-211	CF 48-12-82	CF 49-2-183	CF 49-5-122
CF 48-10-221	CF 48-12-124	CF 49-2-184	CF 49-5-164
CF 48-10-236	CF 48-12-130	CF 49-2-185*	CF 49-5-165
CF 48-10-320	CF 48-12-156	CF 49-2-238	CF 49-5-190
CF 48-10-326	CF 48-12-161	CF 49-2-239	CF 49-5-247
CF 48-10-346	CF 48-12-203	CF 49-2-255	CF 49-6-245
CF 48-10-357	CF 48-12-217	CF 49-3-46	CF 49-7-61
CF 48-10-382	CF 48-12-219	CF 49-3-72	CF 49-7-256
CF 48-11-17	CF 48-12-223	CF 49-3-142	CF 49-9-220
CF 48-11-52	CF 48-12-291	CF 49-3-143	CF 49-10-226
CF 48-11-53	CF 48-12-299	CF 49-3-194	CF 49-11-346
CF 48-11-66	CF 49-1-1	CF 49-3-197	CF 49-12-171
CF 48-11-108	CF 49-1-49	CF 49-3-209	CF 50-10-95
CF 48-11-137	CF 49-1-63	CF 49-3-252	CF 51-6-154
CF 48-11-138	CF 49-1-90	CF 49-3-253	CF 51-9-63-A*
CF 48-11-163	CF 49-1-114	CF 49-4-5	CF 51-10-147
CF 48-11-191	CF 49-1-145	CF 49-4-6	CF 53-2-88
CF 48-11-223	CF 49-1-198	CF 49-4-35	CF 53-3-173
CF 48-11-244	CF 49-1-199	CF 49-4-71	CF 53-7-239
CF 48-11-255	CF 49-1-245	CF 49-4-73	CF 53-11-55*
CF 48-11-289	CF 49-1-264	CF 49-4-89	CF 54-2-186*

*These documents previously sent to TISE.

LIST 1 (continued)

-3-

CF 54-4-164

CF 54-7-103

CF 54-10-169

CF 54-11-186

CF 55-1-203

CF 55-6-192

CF 55-12-121

CF 56-1-194 *

CF 56-7-156

CF 57-1-173 *

CF 57-12-146

ORNL-146

ORNL-172

ORNL-211*

ORNL-283*

ORNL-319*

ORNL-677*

*These documents previously sent to TISE.

LIST 2

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To complete the inventory of ORNL generated documents pertinent to the subject, the following is a list of formal ORNL reports generated by our Health Physics Division which contain some pertinent data. Standard distribution has been made of all.

ORNL-166	Quarterly Report for Period Ending 8-31-48
ORNL-227	Quarterly Report for Period Ending 11-30-48
ORNL-346	Quarterly Report for Period Ending 2-28-49
ORNL-375	Quarterly Report for Period Ending 7-15-49
ORNL-495	Quarterly Report for Period Ending 10-15-49
ORNL-596	Quarterly Report for Period Ending 1-15-50
ORNL-695	Quarterly Report for Period Ending 4-15-50
ORNL-786	Quarterly Report for Period Ending 7-15-50
ORNL-877	Quarterly Report for Period Ending 10-20-50
ORNL-968	Quarterly Report for Period Ending 1-20-51
ORNL-1004	Quarterly Report for Period Ending 4-20-51
ORNL-1086	Quarterly Report for Period Ending 7-20-51
ORNL-1174	Quarterly Report for Period Ending 10-20-51
ORNL-1277	Quarterly Report for Period Ending 1-20-52
ORNL-1353	Progress Report for Period 1-20-52 - 7-20-52
ORNL-1420	Quarterly Report for Period Ending 10-30-52
ORNL-1488	Quarterly Report for Period Ending 1-20-53
ORNL-1596	Semiannual Report for Period Ending 7-31-53
ORNL-1684	Semiannual Report for Period Ending 1-31-54
ORNL-1763	Semiannual Report for Period Ending 7-31-54
ORNL-1860	Semiannual Report for Period Ending 1-31-55
ORNL-1942	Semiannual Report for Period Ending 7-31-55
ORNL-2049	Semiannual Report for Period Ending 1-31-56
ORNL-2151	Semiannual Report for Period Ending 7-31-56
ORNL-2384	Annual Report for Period Ending 7-31-57
ORNL-2590	Annual Report for Period Ending 7-31-58

LIST 3

ORGBP, PADUCAH, AND Y-12 DOCUMENTS GENERATED SINCE JANUARY 1, 1947,
RELATIVE TO RADIOACTIVE CONTENT OF ATMOSPHERE AND AMOUNT OF FALLOUT

OAK RIDGE GASEOUS DIFFUSION PLANT - ORGBP

K-1005 (Unclassified)*

KS-213 (Declassified)*

K-1088 (Unclassified)*

KSA-56 (Unclassified)*

K-1095 (Declassified)*

K-904 - Classified "Secret - Restricted Data" at time of origination by authority of existing classification guides. Has since been downgraded to "Confidential - Restricted Data" in accordance with present guides.

KB-172 - Classified "Confidential - Restricted Data" at time of origination by authority of existing classification guides. It is probably now declassifiable.

KT-128 - Unclassified

KT-369 - Marked "Official Use Only" on basis that the document includes a detailed ORGBP Plot plan which has been handled as "Official Use Only" in accordance with Commission instructions. We have no objection to public release.

KZ-3684 - Classified "Secret - Defense Information" in accordance with guidance available at time of origination. The document can now probably be declassified.

KZ-6671 - Classified "Secret - Defense Information" in accordance with guidance available at time of origination. The document can now probably be declassified.

KZ-6778 - Unclassified

KZ-7219) - Both of these documents are handled as "Official Use Only" and
KZ-7220) - have not been released to the public. Neither of these documents contain sufficient technical data to warrant deletion or revision for public release. We would object to public release of documents of this type.

KFM-27 - "Excerpts from Classified Reports Originated at ORGBP" contains "Secret - Restricted Data" assay information according to present classification guides. Even if the classified information were deleted and the document declassified, we feel it should be maintained as "Official Use Only." The information is of no benefit to the general public and we would object to its release.

*These documents previously sent to TISE.

LIST 3 (continued)

PADUCAH GASEOUS DIFFUSION PLANT

Graph - Unclassified, Paducah Plant Radiological Study - January thru May, 1955.

Y-12 PLANT

Y-1186* - Marked "Official Use Only" in accordance with Commission instructions that specific identification of certain materials or activities within identified Y-12 buildings should be protected by the marking of "Official Use Only." We have no objection to the removal of this marking.

Y-1234* - Unclassified

Y-B94-155 - Marked "Official Use Only" in accordance with Commission instructions that specific identification of certain materials or activities within identified Y-12 buildings should be protected by the marking of "Official Use Only." We would have no objection to the removal of the marking from this document which is entitled, "Air Contamination Results - Excerpted from Y-12 Plant Quarterly Reports from January 1, 1953, through December 31, 1958." All data such as this excerpted information are regularly reported to the AEC Production Division as a part of the Y-12 Plant Quarterly Report. We would have no objection to the Commission excerpting this information for further distribution if they so desire.

*These documents previously sent to TISE.

5.3

INTER-COMPANY CORRESPONDENCE

RECEIVED
D.M. LANG

UNION CARBIDE NUCLEAR COMPANY

Division of Union Carbide Corporation

1959 APR 27 AM 8:21

To: Mr. W. L. Harwell
K-1201 Building

Plant: ORGD

Date: April 22, 1959

Copies To: Mr. K. A. Bahler Dr. G. A. Garrett
Mr. C. E. Center Mr. W. H. Hildebrand, (2) AC
Mr. L. B. Ealet Mr. D. M. LangSubject: Radioactive Content of
the Atmosphere and the
Amount of Fallout

With reference to Mr. S. R. Sapiric's letter of April 8, 1959 to Mr. C. E. Center concerning the captioned subject, copies of ORGD originated documents pertaining to this matter have been sent to AEC-TISE with our transmittals of April 17 and 21, 1959. no copy

Data covering local releases of radioactive materials are collected and analysed regularly as a normal part of plant operations. This information usually pertains to internal conditions, and being of small magnitude is considered of interest primarily for local operations. Such information normally appears in informal and internal reports which are held in a special file for periodic review by AEC-TISE. Any information considered of general interest is included in formal reports which are disseminated in accordance with AEC Standard Distribution Lists. Both procedures have been approved by the AEC as being in accordance with AEC-3202.

General data pertaining to radioactive content of the atmosphere and amount of fallout are not collected at this plant.

A. P. Huber
A. P. Huber

APH:RRL:phm

This document has been approved for release
to the public by:

John Z. Lesh 3/24/76
Technical Information Officer Date
Oak Ridge K-25 Site

Union Carbide Nuclear Company, Oak Ridge
Gaseous Diffusion Plant, Operating Contractor
for the U.S. Atomic Energy Commission.